

What is claimed is:

1. A method for regulating power in a portable audio/video playback device electrically supplied by a power unit, said method comprising the steps of:

detecting a present remaining power  $\alpha$  in said power unit;

5 reading an audio/video multimedia file or data and computing a playback time  $\beta$  of said file or data;

computing an average power consumption rate  $\gamma$  of said portable audio/video playback device; and

10 computing whether the present remaining power  $\alpha$  is sufficient for a complete playback of said audio/video multimedia file or data, and, if the present remaining power  $\alpha$  is not sufficient for a complete playback of said audio/video multimedia file or data, reducing an output level of a video or audio output signal so that the complete playback of said audio/video multimedia file or data may be  
15 accomplished prior to exhaustion of the power.

2. The method for regulating power in a portable audio/video playback device of claim 1, wherein the step of reducing an output level of a video or audio output signal is achieved by performing at least one of  
20 the following steps:

reducing brightness of the video output signal;

reducing contrast of the video output signal;

reducing resolution of the video output signal;

reducing volume of the audio output signal;

25 reducing audio effect of the audio output signal;

reducing a decoding completeness of the video output signal; and

reducing a decoding completeness of the audio output signal.

3. The method for regulating power in a portable audio/video playback device of claim 2, wherein the step of reducing decoding completeness of the video or audio signals includes output unfully decoded audio/video signal.

4. The method for regulating power in a portable audio/video playback device of claim 1, wherein, in the step of reducing an output level of a video or audio output signal, the reduced output level is not lower than a limit value.

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5. The method for regulating power in a portable audio/video playback device of claim 1, wherein the step of reducing an output level of a video or audio output signal comprises turning off a special playback effect of said portable audio/video playback device.

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6. The method for regulating power in a portable audio/video playback device of claim 1, wherein the step of reducing an output level of a video or audio output signal comprises increasing a playback speed of said portable audio/video playback device.

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7. The method for regulating power in a portable audio/video playback device of claim 1, wherein the step of reducing an output level of a video or audio output signal can be performed only under the condition that satisfies  $\alpha/\gamma < \beta$ .

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8. The method for regulating power in a portable audio/video playback

device of claim 1, wherein the step of computing whether the present remaining power  $\alpha$  is sufficient for a complete playback of said audio/video multimedia file or data is performed by computing at a predetermined time interval.

5        9. The method for regulating power in a portable audio/video playback device of claim 8, wherein the predetermined time interval is 3 or 5 minutes.

10       10. The method for regulating power in a portable audio/video playback device of claim 8, wherein computing at a predetermined time interval is performed by using an increment of the playback time  $\Delta\beta$  and an increment of the average power consumption rate  $\Delta\gamma$ .

15       11. The method for regulating power in a portable audio/video playback device of claim 1, wherein the step of reducing an output level of a video or audio output signal continues until the condition  $\alpha/(\gamma-\Delta\gamma) \geq (\beta-\Delta\beta)$  is satisfied.

12. A system for regulating power in a portable audio/video playback device electrically supplied by a power unit, said system comprising:

20       an audio/video playback unit for reading an audio/video multimedia file or data;  
a video unit for producing a video output signal;  
an audio unit for producing an audio output signal; and  
a processing unit connected to said power unit, said video unit, said audio unit and said audio/video playback unit, for detecting a remaining  
25       power in said power unit and computing a playback time of said audio/video multimedia file or data and an average power

consumption rate of said power unit,  
whereby, in a situation of insufficient power, said system operates to  
reduce output levels of the video and audio output signals respectively  
produced by said video and audio units.

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13. The system for regulating power in a portable audio/video playback  
device of claim 12, wherein one pin of said video unit is connected to said  
processing unit to receive therefrom an instruction signal for reducing the  
output level of the video output signal.

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14. The system for regulating power in a portable audio/video playback  
device of claim 12, wherein one pin of said audio unit is connected to said  
processing unit to receive therefrom an instruction signal for reducing the  
output level of the audio output signal.

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15. The system for regulating power in a portable audio/video playback  
device of claim 12, wherein said processing unit instantaneously detecting the  
remaining power in said power unit and computing the average power  
consumption rate of said power unit and the playback time of said audio/video  
multimedia file or data.

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16. The system for regulating power in a portable audio/video playback  
device of claim 12, wherein said power unit is a battery.

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17. The system for regulating power in a portable audio/video playback  
device of claim 12, wherein said video output signal includes brightness,

contrast or resolution.

18. The system for regulating power in a portable audio/video playback device of claim 12, wherein said audio output signal includes volume and audio  
5 effect.

19. The system for regulating power in a portable audio/video playback device of claim 12, wherein a playback speed of said audio/video playback unit may be increased to reduce the playback time of said audio/video multimedia  
10 file or data.

20. The system for regulating power in a portable audio/video playback device of claim 12, wherein the output levels of the video and audio output signals are reduced by performing at least one of the following steps:

- reducing brightness of the video output signal;
- 15 reducing contrast of the video output signal;
- reducing resolution of the video output signal;
- reducing volume of the audio output signal;
- reducing audio effect of the audio output signal;
- reducing a decoding completeness of the video output signal; and
- 20 reducing a decoding completeness of the audio output signal.